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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,067	07/13/2005	Wolfgang Huber	2236USWO	1846
43896	7590	03/25/2008		
ECOLAB INC. MAIL STOP ESC-F7, 655 LONE OAK DRIVE EAGAN, MN 55121			EXAMINER COMLEY, ALEXANDER BRYANT	
			ART UNIT	PAPER NUMBER
			4156	
			MAIL DATE	DELIVERY MODE
			03/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/535,067

Applicant(s)

HUBER ET AL.

Examiner

ALEXANDER B. COMLEY

Art Unit

4156

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/02)
- Paper No(s)/Mail Date 5/13/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. Claims 7-14 are now pending in the current amended application. After non-final rejection, applicant has amended the claim language of Claims 7-11, has left Claim 12 in its originally presented form, and has added new Claims 13 and 14. Claims 1-6 remain cancelled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

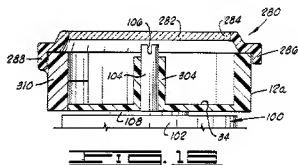
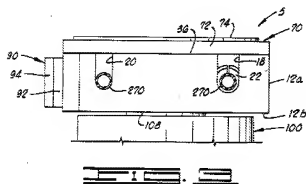
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 7-8 & 10-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent to Becker (4,558,996) in view of United States Patent to Leveen (4,813,855).

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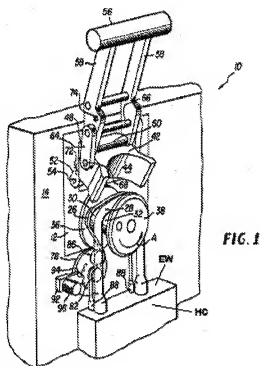
Regarding Independent **Claim 7**, and in reference to figures 3 and 15 shown immediately above, the Becker portion of the combination discloses:

A peristaltic pump (5) comprising: a) a base element (12b); b) an end wall (108) on one side of the base element (12b); c) a U-shaped recess (18, 20) located in the end wall (108); d) a plurality of rotating squeeze rollers (166) located on the base element (12b); e) a replaceable squeeze hose cartridge (22, 270) comprising a squeeze hose carrier (22), a squeeze hose (270), and at least one coupling projection (22) where the coupling projection (22) is configured to rest in the U-shaped recess (18) and the squeeze hose (270) is looped around the squeeze rollers (166) when the squeeze hose cartridge is placed in the pump (5);

As can be seen in the Figures shown above, Becker substantially discloses a peristaltic pump that contains a base, end wall, U-shaped recesses, squeeze rollers, and a replaceable squeeze hose cartridge. In particular, Becker discloses "Fixed stator member 12a is provided with two openings 18 and 20 for the inlet and output ends of the tubing and have orifices equally designed for accepting at either orifice one pump segment fitting/tube grip/stop 22 which secures the resilient collapsible tubing 270 in a permanent position relative to the fixed stator member 12a, i.e., the tube grip 22

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prevents any movement of the resilient collapsible tubing 270 in or out of the fixed stator 12a." (Column 8, Line 60-69). Clearly, Becker's fitting 22 serves the same purpose of retaining the hose in the housing of the pump, and is coupled thereto to create a squeeze hose cartridge. However, Becker fails to specifically and substantially disclose a contact wall or pivot lever.

**FIG. 1**

However, in reference to figure 1 shown immediately above, the Lamadrid portion of the combination discloses the remaining claim elements absent from that of the Becker reference. Lamadrid discloses:

f) a contact wall (44); and g) a pivot lever (56); the contact wall (44) being opposite the squeeze rollers, whereby the contact wall (44) is connected to and movable by the pivot lever (56), wherein the squeeze hose is compressed by the

squeeze rollers by moving the pivot lever (56) which engages the contact wall (44) against the squeeze hose.

As shown in Figure 1 above, Lamadrid discloses all remaining claim elements present in Independent Claim 1. In particular, applicant's contact wall is taught by Lamadrid's inner race 44, which serves the same purpose of compressing the pumping tube between it and the opposing squeeze rollers.

Therefore, to one of ordinary skill desiring a peristaltic pump with a faster and more easily loaded squeeze hose cartridge, it would have been obvious to utilize the techniques disclosed in Becker in combination with those disclosed in Lamadrid in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Easy Load Peristaltic Pump of Becker with the pivoting arm and contact wall of Lamadrid in order to obtain predictable results; those results being a peristaltic pump that simplifies squeeze hose cartridge removable by integrating the pump's pivoting lever with the removable cartridge.

4. In regards to dependent **Claim 8**, the Lamadrid portion of the combination discloses a pivot lever and base comprised of pivots cams and support detents for receiving these pivot cams. As shown above in Figure 1 shown previously above, support detents for receiving the pivoting cams of the pivot lever mechanism. In particular, Lamadrid specifically discloses "Detent means are in fact, however, defined between the operating handle and the links, as well as between the pressure plate housing and the pump base. Such detent means serve a two-fold purpose, the first of

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which is to additionally insure the fact that the pressure plate is retained in either its open or closed position, and the second purpose is to audibly indicate that the pressure plate has in fact attained either its open or closed position." (Column 3, Lines 15-25)

Furthermore, Lamadrid discloses the particular placement of the detents and cavities by stating "In order to further insure the retention of the handle and pressure plate in either one of the extreme opened or closed positions, and to audibly indicate to the operator the fact that the handle and pressure plate components have attained one of the extreme positions, detent means may be provided. Such means may take the form of a simple, spring-biased button or ball which operatively cooperates with a mating cavity. With respect to retaining the handle and pressure plate assembly in the opened position, the detent button may be provided upon each of the exterior sidewalls of the pressure plate as indicated by the reference character 70, the cooperating cavities 72 being provided upon the interior sidewalls 50 of the pump base 12." (Column 6, Lines 26-39)

Regarding dependent **Claims 10-11**, the Becker portion of the combination discloses the use of a detent tongue provided on an end wall, as well as a counter detent provided on the pivoting lever. In particular, as shown in Figure 3, Becker shows a detent member 12a, along with two U-shaped slots 18 and 20 for accepting and retaining the squeeze hose. In particular, Becker discloses "Fixed stator member 12a is provided with two openings 18 and 20 for the inlet and output ends of the tubing and have orifices equally designed for accepting at either orifice one pump segment fitting/tube grip/stop 22 which secures the resilient collapsible tubing 270 in a permanent position relative to the fixed stator member 12a, i.e., the tube grip 22 prevents any

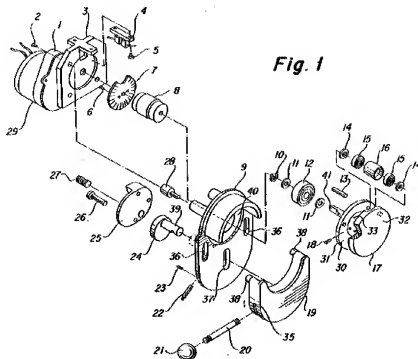
movement of the resilient collapsible tubing 270 in or out of the fixed stator 12a."

(Column 8, Lines 60-69) Furthermore, as shown in Figure 15, Becker discloses a counter detent 286 for detenting with the detent member 12a to restrain the pivoting cover from opening. In particular, Becker discloses "In this alternate embodiment, front flap 286 may fit in snapping engagement over the front portion of fixed stator member 12a (not shown). This alternate embodiment is further provided with a remote offset hinge and flap 288 which rotates around common axis hinge pins 290 so that the alternate door assembly 280 may comfortably rotate vertically about the door stator 310 (not shown) once the front flap 286 of lid 280 is unsnapped from the fixed stator member 12a." (Column 13, Lines 13-22) In regards to dependent **Claim 12**, please see the analysis of Independent Claim 7 above regarding the squeeze hose carrier 22. Regarding dependent **Claim 13**, the claim language fails to define, in particular, which surface the base must be, or must not be, attached thereto. Consequently, because both Becker and Lamadrid utilize fastening means (bolts, screws) only for attaching various pump part surfaces to the base of the pump, both teach the language of Claim 13. Regarding dependent **Claim 14**, the Becker portion of the combination substantially discloses the use of an end wall 108 containing sliding guides (18, 20), as well as coupling projections provided with the squeeze hose cartridge. In particular, Becker's openings (18, 20) are designed to guide the squeeze hose during vertically sliding engagement with the base of the pump. Please see analysis for Claims 10-11 regarding these openings. Furthermore, as can be seen in Figures 1, 6, & 7 (not shown

above), Becker's cartridge (22, 270) also clearly shows two squeeze hose couplings extending from the housing of the pump.

Therefore, to one of ordinary skill desiring a peristaltic pump with a faster and more easily loaded squeeze hose cartridge, it would have been obvious to utilize the techniques disclosed in Becker in combination with those disclosed in Lamadrid in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pump of Becker with the pivoting arm and detent supports of Lamadrid in order to obtain predictable results; those results being a peristaltic pump that simplifies squeeze hose cartridge removal/insertion by utilizing a detenting pivot lever and latching end wall.

5. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent to Becker (4,558,996) in view of United States Patent to Leveen (4,813,855) as applied to claims 7-8, 10-12, & 14 above, and further in view of United States Patent Leveen (4,813,855).



In regards to dependent **Claim 9**, and in reference to Figure 1 immediately above, the Leveen portion of the combination discloses guides (36) for receiving slide rails (38) of a tube-engaging cover (19) that are provided on the housing base (9). Leveen specifically discloses guide slots 36 provided on the housing base 9 for guiding and receiving the cover's projections 38. Furthermore, Leveen specifically discloses a housing cover operation that is the same as applicant's housing cover operation by disclosing, "Pump housing 9 is provided with vertical slots 36 in mounting plate 42 to receive the projections 38 on the shoe 19 which permits vertical movement of the shoe 19 against the face of plate 42 of the pump housing. This vertical movement of the shoe 19 permits opening as shown in FIGS. 2 and 3 of the drawings and closing to engage the flexible tube with the rollers 16 and roller housing 17 as shown in FIG. 4." (Column 3, Lines 36-43)

Therefore, it would have been obvious to one of ordinary skill in the art of peristaltic pumps to modify the pressure plate movement system of Lamadrid with the slidable housing cover of Leveen in order to obtain predictable results; those results being simpler and more efficient housing cover design and operation.

Response to Arguments

Oath/Declaration:

6. The objection to the oath has been withdrawn.

Prior Art Rejections

8. Applicant's arguments with respect to claim 7-12 have been considered but are moot in view of the new ground(s) of rejection. Applicant has asserted that a "replaceable cartridge" is absent from Becker (US Patent No. 4,558,996), Lamadrid (US Patent No. 4,256,442) and Leveen (US Patent No. 4,813,855). However, as described in the above office action, Becker clearly discloses a cartridge consisting of a squeeze hose tubing 270 and a fitting member 22. In particular, Becker discloses "Fixed stator member 12a is provided with two openings 18 and 20 for the inlet and output ends of the tubing and have orifices equally designed for accepting at either orifice one pump segment fitting/tube grip/stop 22 which secures the resilient collapsible tubing 270 in a permanent position relative to the fixed stator member 12a, i.e., the tube grip 22 prevents any movement of the resilient collapsible tubing 270 in or out of the fixed stator 12a." (Column 8, Line 60-69). Clearly, Becker's fitting 22 serves the same purpose of retaining the tubing 270 to the housing of the pump, and is coupled thereto to create an

integral squeeze hose cartridge. Consequently, it is clear that the combination as described in the above office action teaches such a replaceable cartridge.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER COMLEY whose telephone number is 571-270-3772. The examiner can normally be reached on MONDAY-FRIDAY 9:00-3:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID J. ISABELLA can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

3/17/07

Alexander Comley
Patent Examiner

/Dmitry Suhol/

Primary Examiner, Art Unit 3725